

to a particular locality can never be really understood unless they are brought into connection with kindred facts in other parts of the world. This is constantly borne in mind by Dr. Atkinson, and his ample learning enables him to apply the principle in many different ways; so that, when he is talking about Danby, he is often talking at the same time about wide regions of the British Islands, and even about stages of culture through which the greater part of the human race has passed.

One of the most interesting of the sections into which the book is divided is the one headed "Antiquarian." In Danby, as in Cleveland generally, there are many prehistoric burial-mounds, and a large number of these he has carefully excavated. The only traces of bronze he has discovered are "a few mouldering fragments of very thin plate, found with the unprotected bones of a cremated body, and not sufficient to fill a very small pill-box half an inch in diameter." Nevertheless, the contents of the larger "houses" prove conclusively that they belong to the Bronze Age; and Dr. Atkinson is of opinion that they date from the later part of the period. He has found many vases of the Bronze Age type, some jet beads, two polished axe-hammers, various bone pins, arrow-heads and other objects of flint; and by far the larger proportion of these treasures may now be studied, along with similar treasures recovered elsewhere, in the British Museum. Dr. Atkinson tells with great spirit the story of the more memorable of his explorations; and he has much that is amusing to say about the wonder excited among his rustic neighbours by what seem to them his mysterious proceedings, and about the interest aroused in the minds of those whom he has from time to time induced to help him. Across the ridges between which lie the dales of the district are ancient earthworks, all of which "are defensive against attack from the south, and in no other direction whatever." Of these dykes, which seem to be of the same period as the burial-mounds, Dr. Atkinson gives a full and lucid account, and he offers some suggestive hints as to their relation to other old fortifications in the neighbourhood. He has also an excellent chapter on various pits which have often been described as the remains of "British settlements." There can be little doubt, as he shows, that in reality these pits are the remains of early mining excavations.

Another valuable part of the book is devoted to folklore. The belief in witches has not even yet wholly died out in Cleveland; and forty years ago it was still a more or less potent factor in the lives of the people. The author gives some curious instances of the power formerly attributed to witches, and of the means by which their devices were supposed to be thwarted by the "wise men" of the district. He suggests that witches may not always have been mere impostors, but that in some cases they may have been able to exercise the kind of influence to which the phenomena of hypnotism are believed to be due. Even more interesting than the traces of faith in witchcraft are the survivals of "fairy," "dwarf," and "Hob" notions. According to a tale told to Dr. Atkinson by an old woman, there was a farm in Gaisdale where Hob, so long as he was not spied upon, did much excellent work at night. At last some one was curious enough to watch him, and it was thought he would be all the better for "something to hap hissel' wiv." Accord-

ingly a coarse shirt, with a belt or girdle to confine it round his middle, was made for him, and left in the barn where he worked. When he found the gift, Hob broke out in the following couplet:—

"Gin Hob mun hae nowgt but a hardin' hamp,  
He'll coom nae mair, nowther to berry nor stamp."

Dr. Atkinson was delighted with this couplet, for it preserves three words which had become obsolete forty years ago, and two of which—"berry" and "hamp"—had no actual meaning to the speaker. "Stamp" was the word for "the action of knocking off the awns of the barley previously to threshing it, according to the old practice." "Berry," meaning to thresh, he had been "looking and inquiring for, for years, and looking and inquiring in vain." As to "hamp," he had "never had any reason to suppose that it had once been a constituent part of the current Cleveland folk-speech." The hamp was a kind of smock-frock, gathered in about the middle and falling below the knee, and was at one time the characteristic garment of the English peasant. The word "seems to be clearly Old Danish in form and origin."

There are several chapters which will give pleasure to students of geology and ornithology; and in his notes on weddings, burials, the harvest-home, and holy wells, the author displays much ingenuity in detecting survivals of what were in past times wide-spread customs. In the interpretation of old historical documents, and in the purely descriptive parts of the book, he is equally successful. Some readers, finding so many things to lure them on from the beginning of the work to the end, may be disposed to think that Danby is a very exceptional parish. What is exceptional, however, is not so much the writer's subject as the knowledge and insight which enable him to appreciate, and to make others appreciate, its true interest and significance.

#### OUR BOOK SHELF.

*Anatomy, Physiology, Morphology, and Development of the Blow-fly (Calliphora erythrocephala).* Part II. By B. Thompson Lowne, F.R.C.S., F.L.S., &c. (London: R. H. Porter, 1891.)

The general features of this study in insect anatomy have already been noticed (NATURE, vol. xliii, p. 77). Part II. describes the exoskeleton in considerable detail, and contains many useful and elaborate figures. Plate v. and the accompanying explanations give the author's views upon the morphology of the insect-head. The pre-oral part he regards as developed from three bladder-like swellings, to which correspond three primary divisions of the cephalic nerve-centres. The post-oral part is supposed to arise by the fusion of three jaw-bearing segments. The terminal portion of the proboscis is probably developed, according to Mr. Lowne, from the first, and not from the second pair of maxillæ. The description of the mouth-parts is very full, and the figures are extremely good.

The thoracic skeleton is also minutely described, perhaps over-minutely, seeing that, in our author's words, "a classification of the various sclerites indicative of their morphological significance is not possible with our present knowledge." Other careful descriptions by special students show that it is easy to interpret the complex thoracic structures in a different way from that here adopted.

Excellent figures are given of the legs, feet, and wings,

and the description of the foot of the fly is of very special interest. The wing-joint is described with great care and thoroughness, in connection with the mechanics of flight.

Comparisons between insect and vertebrate structures are made with great boldness. One example will probably astonish common-place morphologists. Weismann observed that the femoro-tibial part of the fly's leg forms at first a mere lateral prominence, which is converted by segmentation and constriction into a bent knee, the upper part yielding the coxa and femur, the lower part the tibia. Mr. Lowne confirms this account, and illustrates it by figuring five stages (Fig. 34). Next he compares the lateral prominence to the exopodite of a biramous limb. Then he adopts Dr. Gaskell's suggestion that the limbs of an Arthropod may correspond to the visceral arches of a Vertebrate. In the following sentence we reach the climax. "The double character of the embryonic appendages in the Crustacea, and in the maxillæ of insects, as well as in the thoracic limbs of the rudimentary fly-nymph, is certainly very suggestive of the double character of the pterygomaxillary arch, or even of the hyomandibular in vertebrates."

So much conscientious labour has been bestowed upon this treatise, and it is so useful to the student of insect anatomy, that it is a pity to see the text encumbered with discussions which, to avoid dogmatism, we will merely call extremely hazardous. Would it not be better to bring out such views in another place, and leave the *magnum opus* free of doubtful matter?

When all deductions have been made, the book must be counted a valuable addition to the literature of the subject.

L. C. M.

*Races and Peoples: Lectures on the Science of Ethnography.* By Daniel G. Brinton. (New York: N. D. C. Hodges, 1890. Sold by Kegan Paul, Trench, Trübner, and Co.)

THE lectures of which this book consists were delivered at the Academy of Natural Sciences, Philadelphia, early in 1890. They present a good general view of the leading principles of ethnography, as these are understood by the author. He begins with a discussion of what he calls the physical and psychical elements of ethnography, next treats of the beginnings and subdivisions of races, then takes in order the divisions in which he arranges the various groups of mankind, and finally deals with problems relating to "acclimation," amalgamation, and the influence of civilization on savages, and offers some suggestions as to the destiny of races. The human species seems to him to include five races—the Eur-african, the Aust-african, the Asian, the American, and insular and littoral peoples. Each of these is subdivided into branches, stocks, and groups; and an effort is made to define the traits which, according to Dr. Brinton, the members of each race have in common. It is not always easy to understand the principle of his classification. The Eur-african race, for instance, includes the following groups: Libyans, Egyptians, East Africans, Arabians, Abyssinians, Chaldeans, Euskarians, Indo-Germanic or Celtic peoples, and peoples of the Caucasus. These peoples are all white; and Dr. Brinton thinks we may also say of them, "hair wavy, nose narrow." But the differences by which they are separated from one another are, at least in some cases, so profound, that it is extremely doubtful whether we are warranted in attributing to them a common origin, except in the wide sense in which a common origin is attributed to humanity generally. So long, however, as Dr. Brinton's classification is understood to be merely a convenient way of bringing together great masses of facts, it may be of considerable service to students. The book embodies the results of much careful research, and is written in a clear and vigorous style.

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## LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

### Crystals of Platinum.

SINCE writing a note on this subject to NATURE (vol. xliii. p. 541) I have found that it is by no means requisite to use topaz in order to obtain crystals of platinum from a ribbon of that metal heated by a current. Thus the ribbon may be dusted over with quartz dust, and if the temperature be raised to that at which this is slowly melting (1430° C. about), crystals of platinum gather upon projecting points on the quartz. Doubtless the presence of fluorine will facilitate, as described in my former letter, the volatilization of the platinum, but there is little doubt that at a temperature some 300° below its melting-point (1750°; Violle) there is a slow volatilization of the metal due either to heat pure and simple, or to this in conjunction with the presence of a current as in high vacua.

To put the possibility of chemical action out of the question, I weighed a clean ribbon of pure platinum, 9 centimetres in length, and passed such a current through it, for 30 minutes, as raised it to nearly the melting-point of palladium (1500°; Violle). The first weighing was 0.0700 grammes, the second (after heating) 0.0688, indicating a loss of 1.7 per cent. of its weight.

I find that Prof. A. S. Törnbohm, of Stockholm, has described in a recently-published paper (*Aftryck ur Geol. Fören. i Stockholm Förhandl.*, Bd. 13, Häft 2, 1891) cubical crystals of platinum formed by the action of chlorine gas upon platinum black at a high temperature. The figures illustrating his paper depict crystals similar to those obtained by the present method.

J. JOLY.

Physical Laboratory, Trinity College, Dublin.

### Porpoises in the Victoria Nyanza.

IN Dr. Carl Peters's "New Light on Dark Africa," he speaks of "some large gray-bellied porpoises tumbling about" in Lake Victoria Nyanza, "and rollicking in the tepid flood" (see p. 445).

I should be glad to know whether there is any other authority for the occurrence of a Cetacean in this lake. It is possible, but very improbable, as no Cetaceans are known to occur in the Nile, or other African fresh waters, although there has been a report of the Manatee being found in the Shâri, which runs into Lake Tchad (see Barth, "Reisen," iii. p. 289), and the Manatee also occurs in the Niger.

P. L. SCLATER.

### The Zoological Station at Naples.

IT is desirable that the names of any biologists who wish to make use of the British Association Table at the Naples Zoological Station, during the year commencing in September next, should be in the possession of the Committee before the meeting of the British Association at Cardiff.

Intending applicants are therefore requested to send in their names, and a statement of the nature of the work they propose to undertake, before June 30, to me as Secretary to the Committee.

W. PERCY SLADEN.

13 Hyde Park Gate, S.W., June 6.

### A BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

ON Friday, June 5, Sir Michael Hicks-Beach received in one of the large rooms of the Victoria Hotel, Northumberland Avenue, an unusually numerous and influential deputation on behalf of the British Institute of Preventive Medicine. Sir Michael Hicks-Beach was accompanied by Sir Henry Calcraft, K.C.B., Secretary to the Board of Trade, Mr. Courtenay Boyle, C.B., and Mr. Walter J. Howell.

Among the members of the deputation were the Duke of Westminster, the Earl of Feversham, Sir Frederick Abel, Sir F. Bramwell, Sir John Lubbock, Sir Benjamin